

MALLET et al  
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Atty. Dkt. 3665-122  
RESPONSE  
March 11, 2009

**AMENDMENTS TO THE CLAIMS:**

Please amend the claims as follows:

Claims 1-34. (Canceled)

35. (Currently Amended) A plasmid or a recombinant viral vector ~~suitable for *in vitro* or *ex vivo*~~ transgene delivery into mammalian cells, wherein said vector comprises a chimeric genetic construct comprising a transgene operably linked to at least two distinct posttranscriptional regulatory elements functional in mammalian cells, each comprising a UTR region of a eukaryotic mRNA selected from a WPRE element, tau 3'UTR, TH3'UTR and APP5'UTR.

36. (Previously Presented) The vector of claim 35, wherein at least one posttranscriptional regulatory element confers increased stability to mRNAs.

Claims 37-42. (Canceled)

43. (Previously Presented) The vector of claim 35, wherein said WPRE element comprises SEQ ID NO: 1.

44. (Previously Presented) The vector of claim 35, wherein said APP5'UTR region comprises SEQ ID NO: 2.

45. (Previously Presented) The vector of claim 35, wherein said tau3'UTR region comprises SEQ ID NO: 3.

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46. (Previously Presented) The vector of claim 35, wherein said TH3'UTR region comprises SEQ ID NO: 4.

47. (Previously Presented) The vector of claim 35, wherein said vector further comprises a promoter controlling transcription of the transgene in said mammalian cells.

48. (Previously Presented) The vector of claim 35, wherein said vector further comprises a marker gene.

49. (Previously Presented) The vector of claim 35, wherein said vector further comprises a polyadenylation signal operably linked to said transgene.

Claim 50. (Canceled)

51. (Previously Presented) The vector of claim 35, wherein said vector is selected from a replication-defective adenovirus, a replication-defective adeno-associated virus and a replication-defective retrovirus, including replication-defective lentiviruses.

52. (Previously Presented) The vector of claim 35, wherein the transgene is selected from a transgene coding for a growth factor, a neurotrophic factor, a cytokine, a ligand, a receptor, an immunoglobulin and an enzyme.

53. (Currently Amended) A recombinant cell comprising a plasmid or a recombinant viral [[a ]]vector suitable for *in vitro* or *ex vivo* transgene delivery into mammalian cells, wherein said vector comprises a chimeric genetic construct

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comprising a transgene operably linked to at least two distinct posttranscriptional regulatory elements functional in mammalian cells, each comprising a UTR region of a eukaryotic mRNA selected from a WPRE element, tau 3'UTR, TH3'UTR and APP5'UTR.

Claim 54. (Canceled)

Claim 55. (Canceled)

Claim 56. (Canceled)

Claim 57. (Canceled)

58. (Currently Amended) A method of expressing a transgene in a mammalian cell *in vitro* or *ex vivo*, the method ~~The method of claim 57,~~ comprising:

a) providing a plasmid or a recombinant viral vector ~~vector suitable for *in vitro* or *ex vivo* transgene delivery into mammalian cells,~~ wherein said vector comprises a chimeric genetic construct comprising a transgene operably linked to at least two distinct posttranscriptional regulatory elements functional in mammalian cells, each comprising a UTR region of a eukaryotic mRNA selected from a WPRE element, tau 3'UTR, TH3'UTR and APP5'UTR, and

b) introducing said vector into mammalian cells, said introduction causing expression of said transgene in said mammalian cells.

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59. (Currently Amended) The method of claim [[57]]58, wherein said mammalian cells are neural cells.

60. (Currently Amended) The method of claim [[57]]58, wherein said mammalian cells are fibroblasts.

61. (Currently Amended) The method of claim [[57]]58, wherein said mammalian cell is a human cell or a rodent cell.

62. (Currently Amended) The method of claim [[57]]58, wherein the chimeric genetic construct is introduced into mammalian cells by virus-mediated infection.

63. (Currently Amended) The method of claim [[57]]58, wherein the chimeric genetic construct is introduced into cells by plasmid-mediated transfection.

64. (Currently Amended) A method of expressing *in vitro* or *ex vivo* a transgene in glial cells, the method comprising:

a) providing a plasmid or a recombinant viral vector comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element combined with a APP5'UTR, and

b) introducing said construct into glial cells, said introduction causing expression of said transgene in said glial cells.

65. (Currently Amended) A method of expressing *in vitro* or *ex vivo* a transgene in fibroblasts, the method comprising:

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a) providing a plasmid or a recombinant viral vector comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element combined with a APP5'UTR, and

b) introducing said construct into fibroblasts, said introduction causing expression of said transgene in said fibroblasts.

66. (Currently Amended) A method of expressing *in vitro* or *ex vivo* a transgene in neuronal cells, the method comprising:

a) providing a plasmid or a recombinant viral vector comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element combined with a APP5'UTR and a tau3'UTR, and

b) introducing said construct into neuronal cells, said introduction causing expression of said transgene in said neuronal cells.

67. (Currently Amended) A method of expressing *in vitro* or *ex vivo* a transgene in neuronal cells, the method comprising:

a) providing a plasmid or a recombinant viral vector comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element combined with a APP5'UTR, a tau3'UTR and a TH3'UTR, and

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b) introducing said construct into neuronal cells, said introduction causing expression of said transgene in said neuronal cells.

68. (New) A method of expressing *in vitro* or *ex vivo* a transgene in glial cells, the method comprising:

a) providing a plasmid comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element comprising SEQ ID NO: 1 combined with a APP5'UTR comprising SEQ ID NO: 2, and

b) introducing said plasmid into glial cells, said introduction causing expression of said transgene in said glial cells.

69. (New) A method of expressing *in vitro* or *ex vivo* a transgene in fibroblasts, the method comprising:

a) providing a plasmid comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element comprising SEQ ID NO: 1 combined with a APP5'UTR comprising SEQ ID NO: 2, and

b) introducing said plasmid into fibroblasts, said introduction causing expression of said transgene in said fibroblasts.

70. (New) A method of expressing *in vitro* or *ex vivo* a transgene in neuronal cells, the method comprising:

a) providing a plasmid comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a

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WPRE element comprising SEQ ID NO: 1 combined with a APP5'UTR comprising SEQ ID NO: 2 and a tau3'UTR comprising SEQ ID NO: 3, and

b) introducing said plasmid into neuronal cells, said introduction causing expression of said transgene in said neuronal cells.

71. (New) A method of expressing *in vitro* or *ex vivo* a transgene in neuronal cells, the method comprising:

a) providing a plasmid comprising a chimeric genetic construct comprising said transgene operably linked to posttranscriptional regulatory elements comprising a WPRE element comprising SEQ ID NO: 1 combined with a APP5'UTR comprising SEQ ID NO: 2, a tau3'UTR comprising SEQ ID NO: 3 and a TH3'UTR comprising SEQ ID NO: 4, and

b) introducing said plasmid into neuronal cells, said introduction causing expression of said transgene in said neuronal cells.